

Widening Participation in Computing

Dilma Da Silva
dilma@cse.tamu.edu



CRA-WP

Computing Research Association
Widening Participation

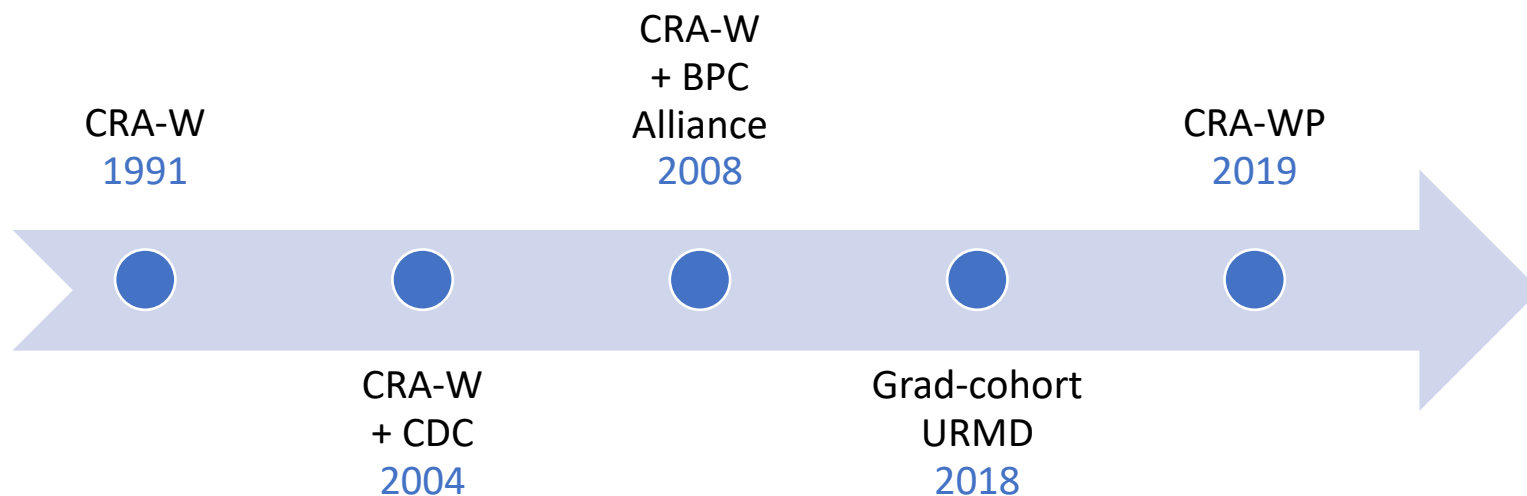


TEXAS A&M UNIVERSITY
Department of Computer
Science & Engineering



CRA-WP: Computing Research Association Committee for Widening Participation

To increase the success and participation of women, underrepresented minorities, and persons with disabilities in computing research and education at all levels.



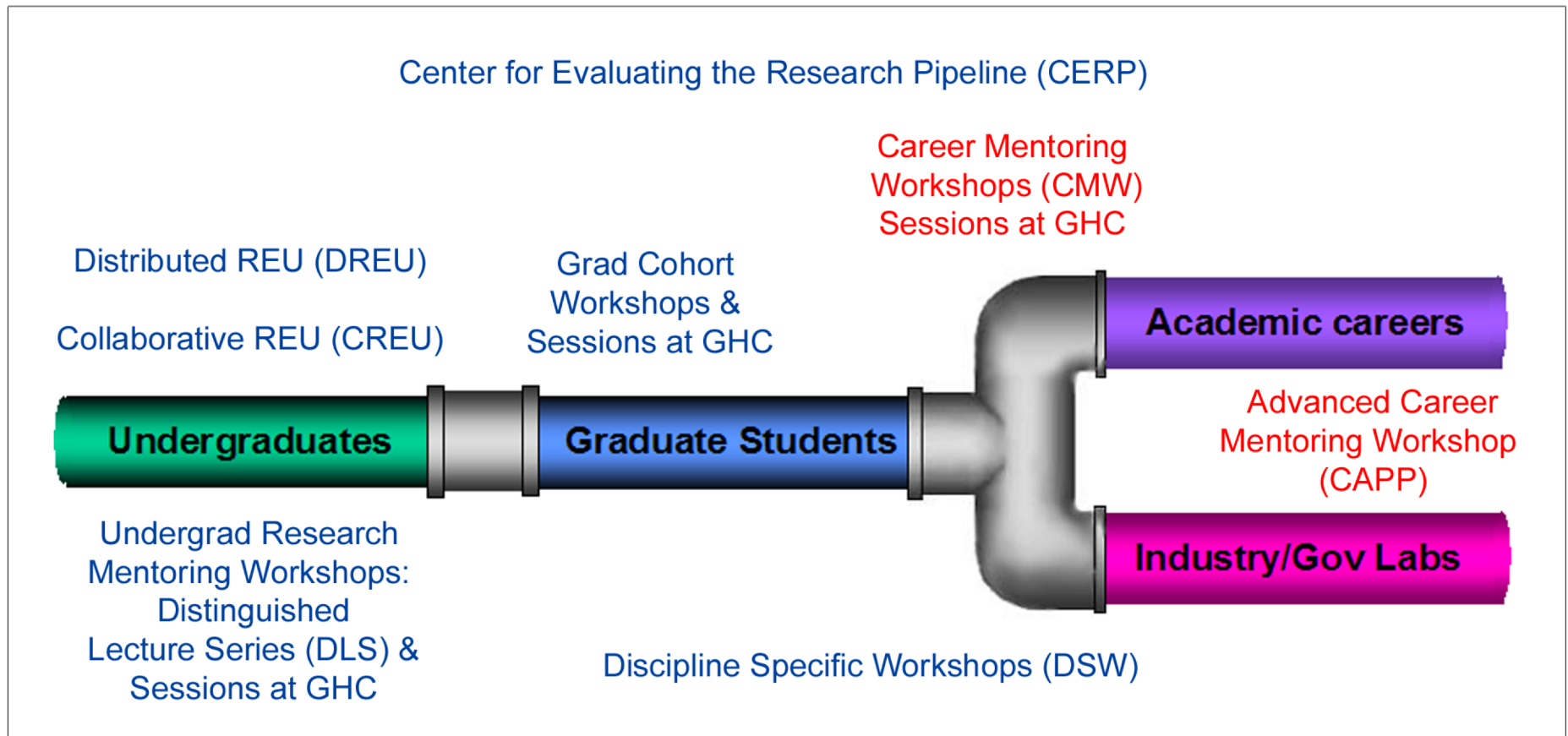
Key principles – First phase

Systematic evaluation is a critical component in all programs

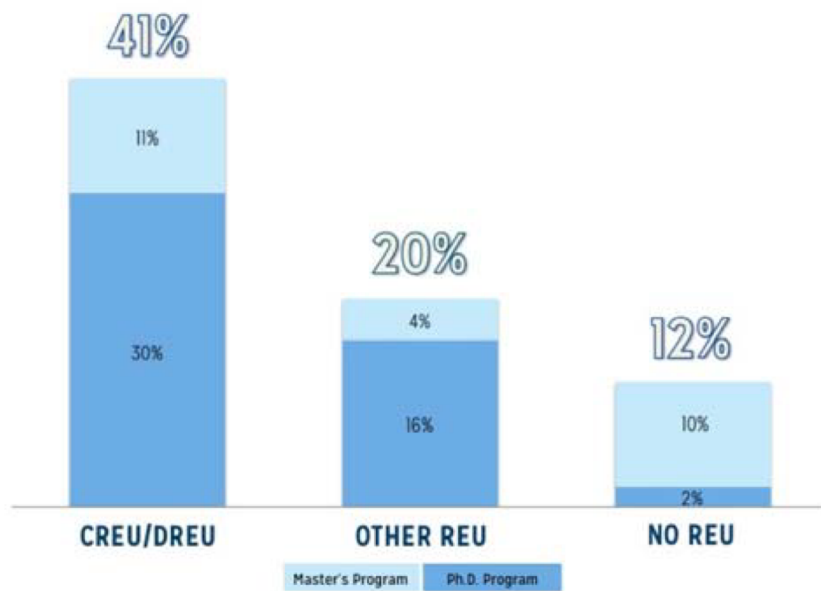


- Collects data from undergraduate and graduate students in computing through an annual national survey
- Provides evaluation services to the computing community

CRA-W Programs covering the Research Pipeline

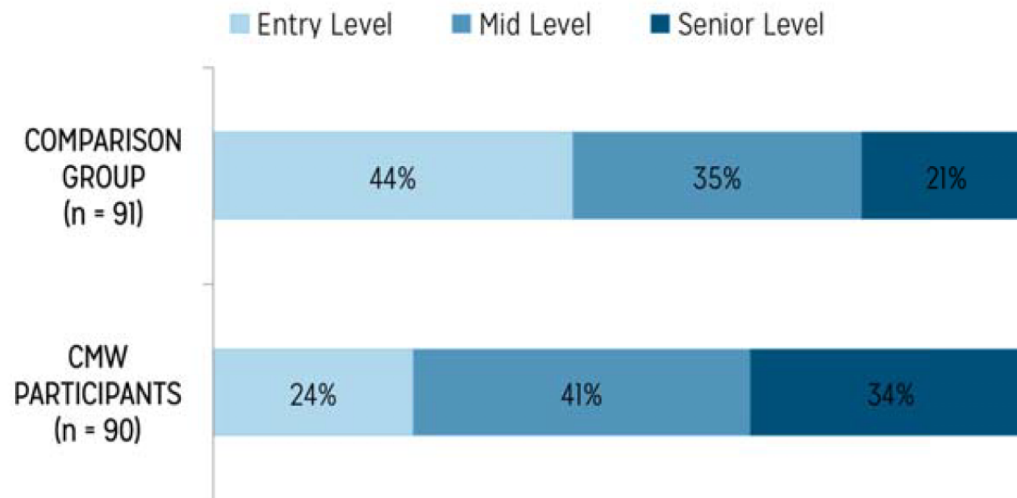


Evaluation shows program effectiveness



Twice as many CREU/DREU students attend graduate school, compared to other REU students. Computing Research News, 28(2), 2016.

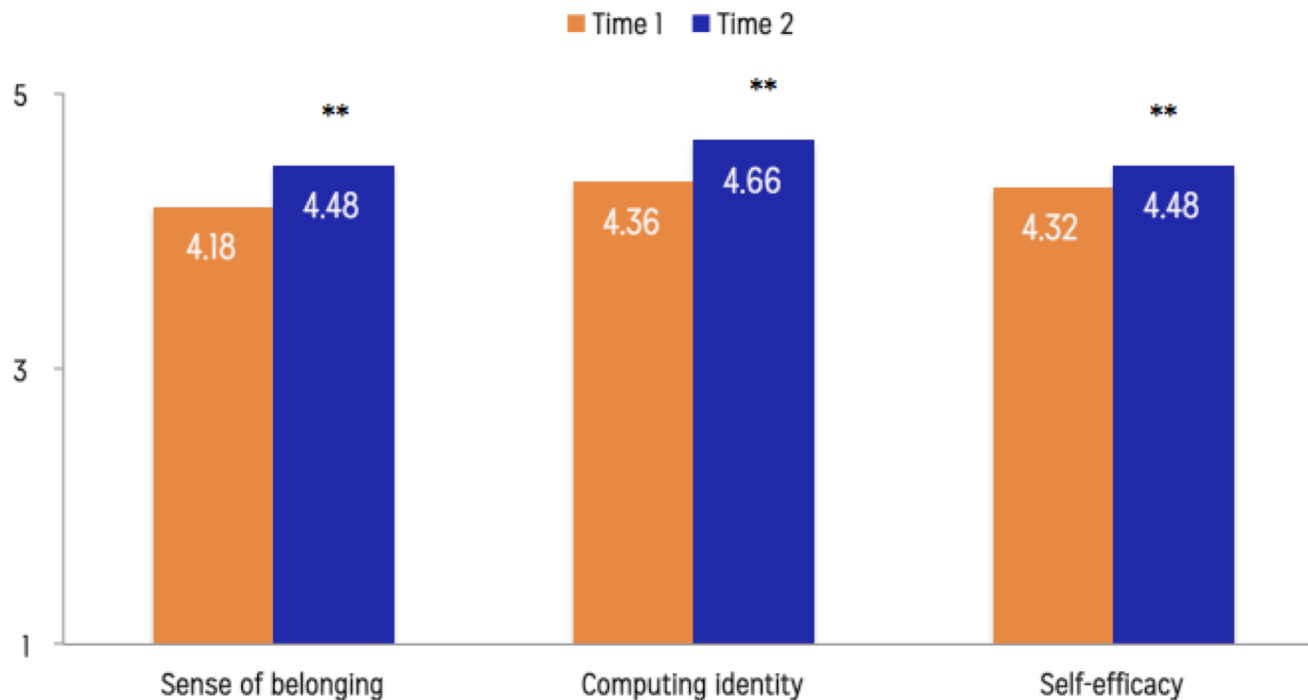
Evaluation shows program effectiveness



CMW participants 1.5 times more likely to receive promotion within six years than a control group of women with similar PhD graduation years

Jane G. Stout and Burcin N. Tamer. Nearly 10 years later, CRA-W Career Mentoring Workshop participants are more advanced in their careers than non-participants. *Computing Research News*, 29(2), 2017.

Evaluation - Changes in URMD participants



Values represent mean responses for each item. Responses were given on a five-point scale with higher numbers indicating greater knowledge of a particular skill. Time 2 means are compared to Time 1 means. ** $p \leq .01$.

Key program updates – Second phase

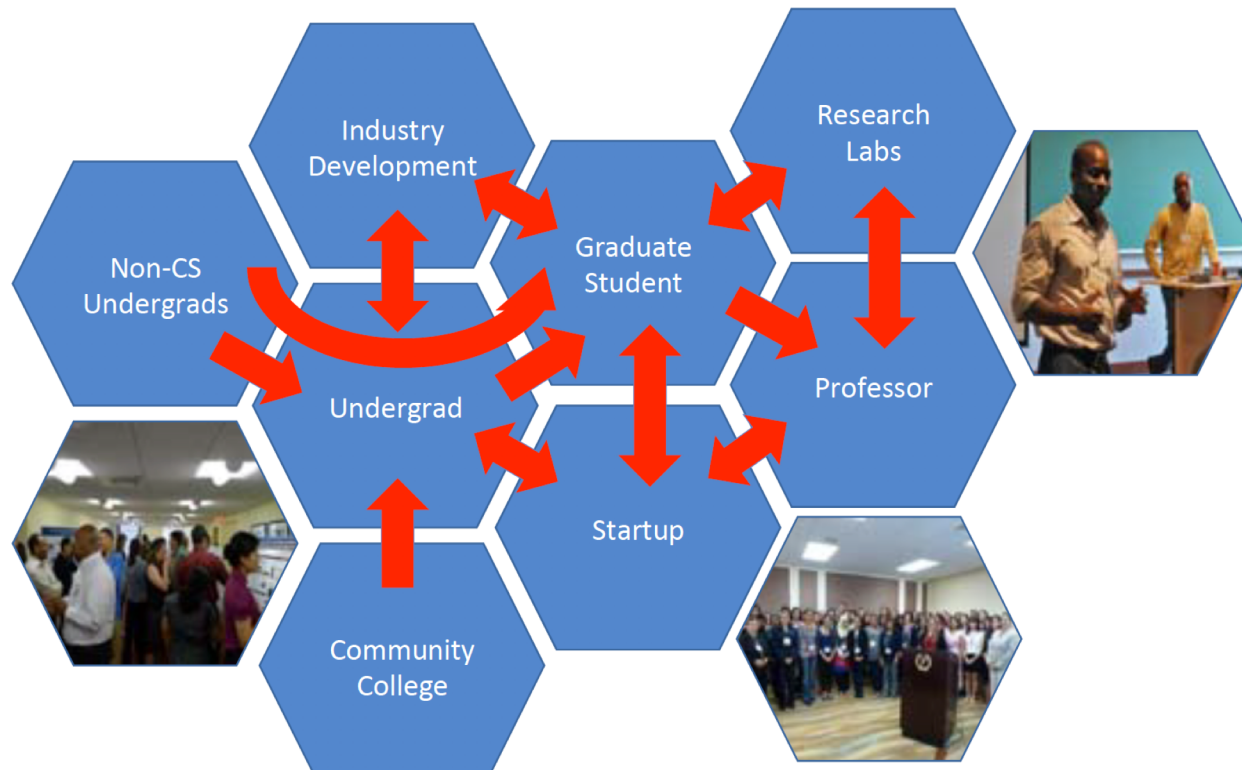
- Program sustainability
 - Success:
Discipline-specific Workshops (2007-2017)
- Scaling the programs

Key program updates – Third phase

Broadening target populations

- support additional Underrepresented Groups in Computing
- Improve scaffolding for intersectionality

Key principles – Third phase – Novel Pathways



Within a specific community



- Connection
- Mentoring, peer mentoring
 - Identity
 - role models



TEXAS A&M UNIVERSITY
Engineering

Largest female incoming freshman engineering class
for the last two years

15,518 undergraduate students – 22% female, 24.3% Hispanic
5.72% female Hispanic



TEXAS A&M UNIVERSITY
**Department of Computer
Science & Engineering**

1,225 undergraduate students – 17% female, 18% Hispanic
2% female Hispanic